WHAT IS CLAIMED IS:

1. A method of transferring message-oriented data between a main unit and a plurality of slave units, comprising the steps of:

inserting first message-oriented data having a fixed data length to an overhead of a first main signal at said main unit;

transferring the first main signal from said main unit to said plurality of slave units;

separating said first message-oriented data inserted to the overhead of the first main signal at said plurality of slave units;

inserting second message-oriented data having a fixed data length to the overhead of a second main signal at said plurality of slave units;

transferring the second main signal from said plurality of slave units to said main unit; and

separating said second message-oriented data inserted to the overhead of the second main signal at said main unit.

2. The method as claimed in claim 1, wherein said second message-oriented data is one of a first packet having a first data length and a second packet having a second data length, which is a multiple of said first data length.

3. The method as claimed in claim 1, further comprising the steps of:

providing head data having a fixed value in said first and second message-oriented data inserted to the overhead of said first and second main signals, respectively; and

detecting said head data in said first and second message-oriented data separated respectively from said first and second main signals, thereby recognizing beginnings of said first and second message-oriented data.

4. A main unit transferring message-oriented data to a plurality of slave units, comprising:

a first memory storing the message-oriented data that has a fixed data length, and includes interruption information, at an address corresponding to each of the plurality of slave units;

a second memory storing the message-oriented data read from said first memory at the address corresponding to said each of the plurality of slave units, from which said message-oriented data is read out at timing corresponding to an overhead of a main signal; and

a multiplexer inserting said message-oriented data read out from said second memory to the overhead of the main signal, and transferring said main signal to said plurality of slave units.

5. A slave unit receiving message-oriented data transferred from a main unit to a plurality of slave units, comprising:

a de-multiplexer separating the message-oriented data inserted to an overhead of a main signal received from said main unit, said message-oriented data corresponding to said slave unit;

a memory storing said message-oriented data separated from the main signal; and

an interruption detection unit detecting whether an interruption exists in said message-oriented data, based on interruption information included in said message-oriented data.

6. A slave unit transferring message-oriented data from a plurality of slave units to a main unit, comprising:

a first memory storing the message-oriented data that has a fixed data length, and includes interruption information;

a second memory storing the message-oriented data read from said first memory, from which said message-oriented data is read out at timing corresponding to said slave unit in an overhead of a main signal; and

a multiplexer inserting said message-oriented data read out from said second memory to the overhead of the main signal, and transferring said main signal to said main unit.

7. The slave unit as claimed in claim 6,

wherein said slave unit selects one of a first packet having a fixed first data length and a second packet having a second data length, which is a multiple of said first data length, for transferring said message-oriented data by use of a selected packet, and for determining a value of said interruption information in accordance with the selected packet.

8. A main unit receiving message-oriented data from a plurality of slave units, comprising:

a de-multiplexer separating the message-oriented data inserted to an overhead of a main signal that is received from each of said plurality of slave units;

a memory storing said message-oriented data separated from the main signal; and

an interruption detection unit detecting whether an interruption exists in said message-oriented data, based on interruption information included in said message-oriented data.

9. The main unit as claimed in claim 8, wherein said interruption detection unit detects whether said message-oriented data is a first packet having a first fixed data length or a second packet having a second data length, which is a multiple of said first data length, based on said interruption information.

10. The main unit as claimed in claim 8, wherein said interruption detection unit outputs a detection signal if the interruption exists in said message-oriented data, and said main unit further comprises a masking unit invalidating said detection signal by each slave unit.